

REMARKS

This Preliminary Amendment is filed in connection with a Request for Continued Examination and in response to the Final Office Action mailed June 22nd, 2005 and the Advisory Action mailed August 31st, 2005. All objections and rejections are respectfully traversed.

Claims 1-22, 38, 40, 41, 43, 44, 46 and 55-79 are now pending in the case.

Claims 55-79 have been added.

Claims 1, 10, 17, and 20 have been amended.

The Applicant respectfully requests an interview with the Examiner to advance the prosecution of this case.

Claim Rejections – 35 U.S.C. §102

At paragraph 3 of the Final Office Action claims 1, 3, 8-12, 14-22, 38, 40-41, 43-44, and 46 were rejected under 35 U.S.C. §102(b) as being unpatentable over Burton et al., US Patent Publication No. 2003/0074527, filed on Oct. 21st, 2001 (hereinafter “Burton”).

The Applicant again urges that rejection of Applicant’s claims under 35 U.S.C. §102(b) is improper. Burton was filed Oct. 21st, 2001, only approximately one month before Applicant’s filing date of Nov. 13th, 2001. Accordingly, Burton does not satisfy the requirements of 35 U.S.C. §102(b).

The Applicant assumes citation of §102(b) was a typographical error and the Examiner instead intended §102(e). To advance the prosecution of this case, Applicant will

prospectively argue Burton as if cited under 35 U.S.C. §102(e). While the Applicant does not admit Burton has actual prior art status, even assuming arguendo Burton is prior art, the reference would not anticipate or make obvious the Applicant's claims as explained below.

In the Advisory Action, the Examiner argues that portions of the Specification pointed to by the Applicant for definition of "balanced array" are merely examples of balanced arrays. In efforts to advance the prosecution of the case, the Applicant has amended the claims to more completely describe the characteristics of a "balanced" array and an "unbalanced" array. The Applicant respectfully urges that when "balanced" and "unbalanced" array are accorded their proper meaning, the claims bear little relation to the disclosure in Burton and are clearly not anticipated.

The Applicant's claim 1, representative of the other rejected claims, sets forth:

1. A method for enabling parity declustering in a balanced parity array of a storage system, where an operating system performs the method comprising the steps of:

combining a plurality of unbalanced stripe arrays, each unbalanced stripe array storing an unequal number of blocks per disk, to form the balanced array, the balanced array storing substantially the same number of blocks on all disks, each unbalanced stripe array having parity blocks on a set of storage devices that are disjoint from a set of storage devices storing data blocks; and

distributing assignment of storage devices to parity groups substantially uniformly throughout the balanced array.

Burton discloses a system to create a "balanced" array where "balanced" is defined as "providing an equal number of disk drives in each span" of the array. See paragraph 0022. For example, Fig. 2 of Burton shows a "balanced" array with 256 disk

drives, divided into 16 spans, each with 16 disks. *See Fig 2 and paragraph 0020.* A graphical user interface is provided so a user can assign disks to spans. *See paragraph 0021.* Attempts are made to minimize the number of spans needed and maximize the number disks assigned to each span. *See paragraphs 22-25.*

The Applicant respectfully urges that Burton is silent concerning the Applicant's claimed "*combining a plurality of unbalanced stripe arrays, each unbalanced stripe array storing an unequal number of blocks per disk, to form the balanced array, the balanced array storing substantially the same number of blocks on all disks*"

First, Burton provides absolutely no disclosure of forming a "balanced" array *storing substantially the same number of blocks on all disks* from "unbalanced" stripe arrays, *each unbalanced stripe array storing an unequal number of blocks per disk.* As described above, Burton defines "balanced" far differently than the Applicant causing any facially similarity in language to not withstand closer inspection. That is, Burton merely moves disks between "spans," so equal numbers of disks are in each span. Burton makes no mention of attempting to store equal numbers of block on all disks. Stated differently, while Burton discloses balancing numbers of disks, the Applicant novelly balances numbers of blocks to create a "balanced" array *having substantially the same number of blocks on all disks.*

Second, Burton is silent concerning Applicant's *combining a plurality* of arrays to form another array. Burton merely discloses moving disks between "spans." Moving disks from one span to another span is far different than combining multiple arrays to form a single combined array structure. Thus, Applicant's "*combining a plurality of*

unbalanced stripe arrays to form the balanced array” can not possibly be shown by Burton movement of disks.

For the reasons discussed above, the Applicant respectfully urges that Burton is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant’s claimed novel “*combining a plurality of unbalanced stripe arrays, each unbalanced stripe array having fewer parity blocks per disk than data blocks per disk, to form the balanced array, the balanced array having substantially the same number of blocks on all disks.”*

Claim Rejections – 35 U.S.C. §103

At paragraph 4 of the Final Office Action, claims 2 and 4-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burton in view of US Patent No. 5,862,158 issued to Baylor et al. (hereinafter “Baylor”).

At paragraph 5 of the Final Office Action, claims 7 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Burton in view of Baylor, in further view of US Patent No. 3,993,862 issued to Karr.

The Applicant respectfully notes that claims 2, 4-7, and 13 are dependent claims that depend from independent claims which are believed to be in condition for allowance. Accordingly, claims 2, 4-7, and 13 are also believed to be in condition for allowance.

In the event that the Examiner deems personal contact desirable in the disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-3078.

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All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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